

Notice of Allowability

Application No.

10/617,347

Applicant(s)

KONDO ET AL.

Examiner

James S. Wozniak

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the supplemental amendment after final filed on 11/19/2007.
2. ☒ The allowed claim(s) is/are 1-4 and 6-9 (now claims 1-8).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

1. In response to the advisory action from 11/7/2007, the applicant has submitted a supplemental amendment after final, filed 11/19/2007, amending claims 4 and 9 to overcome the previous 35 U.S.C. 101 rejections (*Amendment, Page 9*). In response to these amendments, the below examiner's amendment, and for the below reasons, claims 1-4 and 6-9 are allowable of the prior art of record.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Presson (Reg. No. 41,442) on 1/14/2008.

3. The application has been amended as follows:

In claim 4, line 2, change "when executed by an information encoding" to --when executed by a computer for controlling an information encoding--.

Allowable Subject Matter

4. Claims 1-4 and 6-9 are allowable of the prior art of record.

5. The following is an examiner's statement of reasons for allowance:

With respect to **Claims 1 and 3-4**, the prior art fails to explicitly teach or fairly suggest, either individually or in combination, an audio encoding method, system, and computer readable medium that stores a computer-executable program that adds and indicates the presence of additional encoded information in an audio signal (*i.e., copyright information, lyrics, artists' names, and music categories, see specification, Page 19*) by converting an input audio signal into a spectrum, removing the spectra of frequencies having levels below a minimum audible level curve, and adding and indicating the presence of extra information by: determining whether first and second frequency spectrum levels are above the audible level curve (*See Fig. 5 and specification, page 15*), switching frequency levels of the first and second frequencies if the first determination proves valid, and comparing the switched frequencies to an audible level curve to determine if one out of the two frequency spectra is above the curve (*See Fig. 6 and specification, pages 15-16*). If the second condition holds valid then the audio signals are switched, the additional information is added, and the audio signal is encoded along with the additional information.

With respect to **Claims 6 and 8-9**, the prior art fails to explicitly teach or fairly suggest, either individually or in combination, an audio decoding method, system, and computer readable medium that stores a computer-executable program that determines the presence of and extracts

additional encoded information in an audio signal (*i.e.*, *copyright information, lyrics, artists' names, and music categories, see specification, Page 19*) through decoding an input encoded audio signal and determining the presence of extra information by: comparing two frequencies to an audible level curve to determine if one out of the two frequency spectra is above the curve (*See Fig. 6*) and determining whether first and second switched frequency spectrum levels are above the audible level curve (*See Fig. 5*). If the both conditions hold then the additional information is extracted from the audio signal.

The closest prior art is Srinivasan (*U.S. Patent: 6,272,176*). Srinivasan discloses a system and method for adding ancillary, non-audio information to an audio system (*Col. 7, Lines 10-26*). Srinivasan teaches that this information is indicated and encoded by swapping a spectral amplitude at a particular index with a maximum spectral amplitude in close proximity (*Col. 11, Lines 1-15*). Srinivasan also notes the well-known concept of audio compression based on audibility levels (*masking higher, non-audible frequencies, Col. 10, Lines 5-19 and Lines 48-59*). Although Srinivasan discloses swapping frequencies to indicate non-audio ancillary information, Srinivasan does not explicitly teach or even suggest the test conditions recited in the claimed invention, wherein two frequency spectra both have to be above an audibility curve initially and one of the two frequency spectra has to be above and the other below an audibility curve when switched to encode additional information in an audio signal and both conditions must hold in order to extract the additional information in an audio decoding process.

Claim 2 further limits Claim 1, and thus, also contains allowable subject matter.

Claim 7 further limits Claim 6, and thus, also contains allowable subject matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

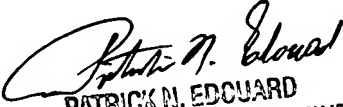
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
1/15/2008


PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER